

III B. Tech I Semester Supplementary Examinations, JULY - 2023

COMPUTER NETWORKS

(Common to CSE, IT)

Time: 3 hours

Max. Marks: 70

Answer any **FIVE** Questions **ONE** Question from **Each unit**

All Questions Carry Equal Marks

UNIT-I

1. a) What is Internet? Discuss its history [7M]
 b) Explain different Network types [7M]
 (OR)

2. a) Discuss Coaxial cable and Fiber optical cable of guided media [7M]
 b) Explain Wireless Radio waves and microwaves of unguided media [7M]

UNIT-II

3. Discuss Data link layer protocols for Noiseless channel and Noisy channel in detail [14M]
 (OR)

4. a) A bit stream 10011101 is transmitted using CRC method. The generator polynomial is x^3+1 . Show that the actual bit transmitted. Suppose that third bit from the left is inverted during the transmission. Show that this error is detected at the receiver's end. [6M]

- b) Explain Point-to -Point protocol in detail [8M]

UNIT-III

5. a) What is ALOHA? Discuss different versions of ALOHA protocol and compare them [10M]
 b) i) A pure ALOHA network transmits 200 bit frames on a shared channel of 200 kbps. What is the throughput if the system (all stations together) produces 1000 frames per second [4M]
 ii) A slotted ALOHA network transmits 200 bit frames on a shared channel of 200 kbps. What is the throughput if the system (all stations together) produces 1000 frames per second

(OR)

6. What is Ethernet? Discuss four generations of Ethernet evolutions briefly [14M]

UNIT-IV

7. a) What is flooding? Explain Flooding algorithm [4M]
 b) Explain Distance routing Algorithm [6M]
 c) Discuss the general principles and prevention policies of congestion control [4M]

(OR)



8. a) What is internetworking? Explain tunneling [4M]
b) Explain the transition from IPV4 to IPV6 [4M]
c) Discuss different Internet control protocols [6M]
- UNIT-V**
9. a) What is UDP? Discuss its packet format and applications [6M]
b) What is congestion? Discuss TCP congestion control [8M]
- (OR)
10. a) Explain architecture of WWW and different Web documents [7M]
b) Discuss DNS in detail [7M]

